



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,045	12/12/2006	Daiichi Suzuki	289688US2PCT	2327
22850	7590	12/22/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER PEACE, RHONDA S	
			ART UNIT	PAPER NUMBER
			2874	
			NOTIFICATION DATE	DELIVERY MODE
			12/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/577,045	Applicant(s) SUZUKI ET AL.	
	Examiner Rhonda S. Peace	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/16/2008 have been fully considered but they are not persuasive. Applicants argue Yasuo fails to disclose an OCB mode liquid crystal, and therefore fails to anticipate claim 1. The Examiner respectfully disagrees.

In response to applicant's arguments, the recitation "optically compensated birefringence (OCB) mode" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Applicants also argue Yasuo fails to anticipate claim 1 as Yasuo fails to teach that a minimum value in the spectrum of front reflectance of a portion of the opposing electrode corresponding to the blue filter is between 380 and 480 nm and the thickness of a portion of the opposing electrode corresponding to the blue filter layer tB is confined to $100\text{nm} < tB \leq 140\text{ nm}$. The Examiner respectfully disagrees.

As previously stated in the Office Action mailed 6/16/2008, the opposing substrate **42** is formed such that a portion of said opposing electrode **63** corresponding to the blue filter layers is confined to 135 nm. See Yasuo, paragraph 0014. The minimum value in spectrum of front reflectance of a portion of the opposing electrode **63**

Art Unit: 2874

corresponding to the blue filter is 460 nm. See Yasuo, paragraph 0015. As seen in Figure 4, the array substrate 41 and the opposing substrate 42 (with opposing electrode 63) are placed in the display such that the bottom surface of the opposing substrate 42 and the top surface of the array substrate 41 have a uniform gap therebetween.

Finally, Applicant argues Yasuo fails to anticipate claim 1 as Yasuo does not disclose the thickness t_B of the opposing electrode is a uniform thickness defined by $100\text{nm} < t_B \leq 140\text{ nm}$. The Examiner agrees such a structure is not taught by Yasuo, as Yasuo discloses an opposing electrode having a varying thickness. However, claim 1 does not require the limitation as described by the Applicant. Claim 1 requires, “an opposing substrate having an opposing electrode which is located so as to face the array substrate with a gap of uniform thickness between *them*.” The broad language of this limitation does not specifically require the opposing electrode to have a uniform thickness, and such a limitation may be met, for example, by a structure where the opposing substrate (having an opposing electrode) and the array substrate are placed parallel to one another, thereby forming a gap of uniform thickness in between the two opposing surfaces of the substrate. The Examiner suggests Applicants further refine the language of claim 1 to specifically express the opposing electrode have a uniform thickness.

For these reasons, the rejection of claims 1, 2, 6, and 8 is maintained. Claims 3-5, 7, and 9 are currently cancelled. Claims 10-12 are additionally rejected for the reasons given below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasuo (JP 08-122803).

Pertaining to claims 1-9 and 12, Yasuo discloses a liquid crystal display device comprising a TFT substrate 41 having a plurality of pixel electrodes 52, an opposing substrate 42 having an opposing electrode 63 located so as to face the TFT substrate 41 with a gap therebetween, color filters 61 comprising red, green, and blue filter layers corresponding to the said pixel electrodes 52 and arranged between the opposing substrate 42 and the opposing electrode 63, a liquid crystal layer 45 arranged in a bend alignment and interposed between said TFT substrate 41 and said opposing substrate 42. As seen in Figure 4, the array substrate 41 and the opposing substrate 42 (with opposing electrode 63) are placed in the display such that the bottom surface of the opposing substrate 42 and the top surface of the array substrate 41 have a uniform gap therebetween. The opposing substrate 42 is formed such that a portion of said opposing electrode 63 corresponding to the blue filter layers is confined to $135\text{ nm} \pm 80\text{nm}$, for example, 120nm. The minimum value in spectrum of front reflectance of a portion of the opposing electrode 63 corresponding to the blue filter is 460 nm. The opposing electrode 63 is formed by indium tin oxide (ITO) film, and therefore meets the limitations regarding ntB, ntG, and ntR as set forth in claims 4 and 5. Moreover, a

Art Unit: 2874

phase difference plate 64 is located on the cell 45 and a polarizing plate 47 located on the cell, such that the phase difference plate 64 is located between the polarization plate 47 and the liquid crystal cell 45. See ¶ 0012-0015, 0024-0026, and Drawings 1 and 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2874

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuo (JP 08-122803).

Pertaining to claim 10, Yasuo discloses the liquid crystal display as described above. While Figure 1 of Yasuo clearly shows the display is backlit with a light source, although Yasuo does not directly disclose a backlight located on an outer surface of the array substrate. Nonetheless, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a backlight located on an outer surface of the array substrate to provide the illumination described and shown in Figure 1 by Yasuo which is essential to the operation of the display device. Such a backlight would inherently include a light source.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuo (JP 08-122803), in further view of Ishihara et al (US 2003/0011732).

Concerning claim 11, Yasuo discloses the display device as previously described. However, Yasuo does not disclose the backlight comprising a blue green absorber for absorbing at least a portion of the spectral region of blue green. Ishihara et al discloses a liquid crystal display having a backlight 150 disposed behind the liquid crystal, wherein the backlight 150 comprises a light source 151 and interference filters 152. See Ishihara et al, paragraph 0171-0173. The filters 152 absorb a portion of light within the spectral region of blue green. See paragraph 0173. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a

Art Unit: 2874

backlight comprising a blue green absorber for absorbing at least a portion of the spectral region of blue green, as Ishihara et al discloses the absorption of a portion of the blue green spectrum makes it possible to substantially equalize the amounts of outgoing light in the wavelengths of red, green, and blue, respectively, and hence bluishness can be decreased when the liquid crystal display makes a black display. See Ishihara et al, paragraph 0174.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kikkawa (US 6,665,032) discloses an OCB mode LCD device having an opposing electrode of uniform thickness.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2874

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571)272-8580. The examiner can normally be reached on M-F (8-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Uyen-Chau Le can be reached on (571) 272- 2397. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rhonda S. Peace/
Examiner, Art Unit 2874

/Michelle R. Connelly-Cushwa/
Primary Examiner, Art Unit 2874